

**IN THE CLAIMS:**

Please cancel claims 1-7 without prejudice to or disclaimer of the subject matter recited therein.

Please add new claims 8-13 as follows:

**LISTING OF CURRENT CLAIMS**

Claims 1-7. (Canceled)

Claim 8. (New) A heat sink cooling device for an integrated circuit comprising:

- a) a base; and
- b) a plurality of heat zones having:
  - 5 i) at least one first heat zone having a plurality of first heat zone fins, the plurality of first heat zone fins having a plurality of first heat zone vertical plates and a plurality of first heat zone horizontal plates, each first heat zone vertical plate is located between two first heat zone horizontal plates of the plurality of first heat zone horizontal plates, each two first heat zone horizontal plates including a first top horizontal plate and a first bottom horizontal plate, each first bottom horizontal plate is connected to the base and each first top horizontal plate is spaced apart from the base; and
  - 10 ii) at least one second heat zone having a plurality of second heat zone fins, the plurality of second heat zone fins having a plurality of second heat zone vertical plates and a plurality of second heat zone horizontal plates, each second heat zone vertical plate is located between two second heat zone horizontal plates of the plurality of second heat zone horizontal plates, each two second heat zone horizontal plates including a second top horizontal plate and a second bottom horizontal plate, each second bottom horizontal plate is connected to the

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base and each second top horizontal plate is spaced apart from  
the base,

wherein each of the plurality of first heat zone vertical plates have a height  
that is higher than a height of each of the plurality of second heat zone  
vertical plates.

Claim 9. (New) The heat sink cooling device according to claim 8, wherein  
the plurality of heat zones includes one first heat zone and one second heat zone.

Claim 10. (New) The heat sink cooling device according to claim 8, wherein  
the plurality of heat zones includes one first heat zone and two second heat zones.

Claim 11. (New) The heat sink cooling device according to claim 8, wherein  
the plurality of heat zones includes two heat zones and one second heat zone.

Claim 12. (New) The heat sink cooling device according to claim 8, wherein  
each first top horizontal plate and each second top horizontal plate includes a  
rectangular hole.

Claim 13. (New) The heat sink cooling device according to claim 8, wherein  
the plurality of heat zones are formed by bending a metal plate.